Rocky Flats Citizens Advisory Board
Meeting Minutes
July 11, 2002
6 to 9:30 p.m.
Jefferson County Airport Terminal Building, 11755 Airport Way, Broomfield

FACILITATOR: Scott Woodard

Jeff Eggleston, the Board's chair, called the meeting to order at 6 p.m.

BOARD / EX-OFFICIO MEMBERS PRESENT: Joe Downey, Jeff Eggleston, Tom Gallegos, Shirley Garcia, Victor Holm, Jim Kinsinger, Bill Kossack, Tom Marshall, Mary Mattson, LeRoy Moore, Nancy Peters, Earl Sorrels / Steve Gunderson, Joe Legare, Tim Rehder, Dean Rundle

BOARD / EX-OFFICIO MEMBERS ABSENT: Suzanne Allen, Maureen Eldredge, Noelle Stenger Green / Jeremy Karpatkin

PUBLIC / OBSERVERS PRESENT: Anna Martinez (DOE-RFFO); Don Owen (DNFSB); Louise Janson (resident); Rob Henneke (EPA); Rick DiSalvo (DOE-RFFO); Mike Reddy (City of Westminster); Mark Sattelberg (USFWS); Allen Schubert (KH); Melissa Anderson (RFCLoG); Alan Trenary (citizen); Carl Mitcham (School of Mines); Natalie Gulsrud (CU-Boulder); Vanessa Safonovs (citizen); Earl Gunia (citizen); Jerry Henderson (RFCAB staff); Ken Korkia (RFCAB staff); Patricia Rice (RFCAB staff); Deb Thompson (RFCAB staff)

PUBLIC COMMENT PERIOD: Deb Thompson, RFCAB staff member, reported on public comment received through the Board's comment line, email, and periodic surveys. This month's survey question addressed old process waste lines. The public was first asked to comment on whether or not they felt leaving the waste lines in place would pose a risk in the future. The second part of the question asked the public to select whether they would prefer: 1) to remove the lines regardless of cost, 2) to remove the lines even if it affects funds available for other cleanup, 3) to remove only the lines that showed contamination, or 4) to leave the lines in place.

A clear majority felt the lines would pose a risk in the future, and also believed the lines should be removed completely. Deb said the survey results are not accurate, because she said there had been an effort over the past few days to "stack the deck" on the survey results. Her written summary has more detail about this problem.

Following is a summary of individual public comment received over the past month:

- One person who used to live in north Golden asked whether they would be more likely to develop cancer as a result of Rocky Flats activities. That person was referred to CDPHE's health studies department.
- A writer from Denver mentioned the Coal Seam fire in connection with leaving dangerous material underground, and stated he felt that at the very least, any pipe that ever contained plutonium should be removed.
- A Broomfield resident said he feels the process lines could pose a hazard to the Denver area in the event of earthquake, flood, or other disaster such as a plane crash, fire, or explosion. He believes that in this case it is necessary to be more proactive. This individual used to work at the site and believes the ground underneath Building 771 is highly contaminated. He mentioned attempts by workers to trace drain lines and their contamination.
- One resident from Arvada believes that many of the transfer lines have leaked contaminated liquid into the ground, and the only way to clean up the spills is to remove the piping, the valve vaults, and the contaminated soil.
- A woman from Boulder wrote to ask about the Rocky Flats Cold War Museum, and had some suggestions for educational programs. She was referred to one of our Board members who currently serves as a director for the Cold War Museum.
- A caller from Broomfield stated that he feels the waste lines should be removed since they contained

radioactive material and would likely cause a problem in the long-term. He also mentioned security at the site, and expressed his hope that the site is taking adequate precautions to secure all radioactive materials.

- Another resident of Arvada stated he feels the waste lines should be excavated and any contamination caused by them should be packaged and sent to WIPP. He believes this should be a priority over any "cosmetic environmental remediation" or the demolition of uncontaminated buildings. This individual believes that any cleanup should assume that things may be very different in the future than what we plan for today.
- Finally, the Board continues to have detractors. An individual wrote anonymously complaining about the survey being too biased, and equated the survey question as being similar to asking, "do you think it is okay to beat your wife," because the results would be the same.

Deb said she would like to comment on that statement, but refrained.

REGULATOR UPDATE – DNFSB: Don Owen with the Defense Nuclear Facilities Safety Board gave a quarterly briefing on Rocky Flats Issues.

- Plutonium processing. Since March, stabilization and packaging of metal and oxide in the Plutonium Stabilization and Packaging System continues and the site has done well. From a total of around 2,000 cans of the type 3013 designed for long-term storage, 770 have been completed. Oxide stabilization to date has been primarily of oxides that consist of more than 80% oxide. The site is working on efforts to stabilize oxides that are made up of less than 80% oxide. Organics found in those oxides can cause instability. Packaging of plutonium residues is complete, and on target with DNFSB's milestone.
- Integrated safety management issues. On March 19, DNFSB issued a letter to DOE regarding integrated safety management issues. This letter was prepared in response to a couple of key areas where it appeared the site was slow to make changes: mentoring for activity work planning, and DOE-RFFO oversight of work planning. A response to their letter was received from Jessie Roberson in late June.
- Safety system management. Regarding DNFSB Recommendation 2000-2 on safety system management, detailed "Phase II" assessments are complete for both the fire protection and ventilation systems in Building 371. Also, the use of designated system engineers is being strengthened
- D&D activities. Recent experience with decontamination of gloveboxes continues to be positive.

UPDATE ON SITE HEALTH AND SAFETY ISSUES: Bob Goldsmith attended the meeting to discuss site health and safety. He has been at the Rocky Flats site serving as the assistant manager for safety programs since the end of April. His background is in public health, he is trained as an epidemiologist, and has worked for 20 years with DOE.

Regarding the Rocky Flats site, Mr. Goldsmith noted that he has seen a lot of work being done, but does have concerns about some issues. For instance: the packaging of a glovebox into a cargo container that resulted in a spill on the ground; a subcontractor in Building 886 had an incident with beryllium; there have been at least three incidents with packaging mix-ups; problems with electrical devices in another building; and in Building 371 an electrician cut a conduit he thought was not energized but was. General problems are of concern to him, especially the frequency of occurrences.

As for the bigger problems, one explanation is that some of the problems occurring now are because they are doing more D&D work instead of radiation work, and that amounts to working in a different environment with different types of injuries. However, he said there are too many times where lessons learned are not adequately applied, and there is a greater need to make sure that lessons learned in one building are shared adequately with other buildings. He feels that project workers sometimes are too focused on one aspect of their work (i.e. demolition), and need to look at other areas that are impacted by their work (such as noticing an overhead power line). Most important, if something doesn't seem to be going right, the work needs to be stopped immediately.

DOE's role is to ensure that the contractor has the systems in place to make sure things happen properly. Many

assessments have been performed, but he would like to see a focus on assessments with a larger scope. The site has a safety assessment center and has collected a lot of data. However, much of the data is not organized in a way to assist with figuring out what is going wrong and how to fix it. He believes the site needs to stress that the schedule for work will take care of itself as long as the focus is always on safety. Mr. Goldsmith plans to bring in the National Safety Council to do a report on trends, to talk to both workers and managers, and develop a report on what is happening.

Board members discussed other safety issues, such as workers having to work too many hours and being under pressure to get projects completed on schedule. Other concerns expressed by Board members are that management needs to be seen out in the field to reinforce that safety is important; some safety occurrences are of a routine nature and should be known to everyone; agreement that lessons are not being learned; and a concern that incentives are more concrete for completing projects but there are not enough incentives for safety achievements.

PRESENTATION REGARDING END-STATE DISCUSSION: Joe Legare talked about the site's integrated end-state approach, specifically plans to address subsurface contamination. Through this strategy, the RFCA agencies hope to achieve a more unified risk-based approach to cleanup, with greater overall risk reduction to the public. The plan addresses the community's interest in achieving greater surface contamination removal. Assumptions for purposes of developing this strategy are that 1) the cleanup will not receive funds beyond those already committed through the end of 2006, 2) the resources already committed to the project are sufficient for a safe and compliant cleanup, 3) choices must be made about the best path for achieving a compliant cleanup, and 4) under any cleanup scenario there will be residual contamination, institutional controls, and a stewardship plan.

The RFCA parties are proposing a greater cleanup of surface soil with across-the-board remediation to 50pCi/gram. Surface water proposals are modest: changing on-site enforcement to annual averaging with no changes planned for off-site enforcement, standards, and monitoring periods. However, the subsurface remediation proposal is more complex, raising the issue of what is left behind and why. The major areas of concern are the original process waste lines (OPWLs), and underbuilding contamination. More than 12,000 subsurface samples have been taken in both the industrial area and the buffer zone. Detections exist for metals (three greater than Tier 1 for beryllium), radionuclides (12 greater than Tier 1 for plutonium, americium, and uranium), and organics (25 greater than Tier 1 for a variety of organics). There has been very limited sampling done on the OPWLs, and much of the information that exists is due to historical and process knowledge. The site believes there are 26 specific locations of likely leaks at depths less than six feet, and 57 questionable areas also less than six feet. Exposure mechanisms for these lines are primarily from groundwater, human intrusion, and possibly from burrowing animals.

The site's planned approach to OPWLs is to remove all lines above three feet, and to remove any lines above six feet where contamination greater than 50 pCi/g is found. Sampling will be performed for all known leaks, with additional sampling in the 700 area where leaks are suspected. Valve vaults will be removed where practical. Additional remediation may be performed based on contamination levels. Mr. Legare believes this approach reduces uncertainty by sampling known and suspected leaks.

Sampling for radionuclides under Buildings 771, 123, 889, and 442 have so far shown no areas of underbuilding contamination. However, more sampling needs to be performed, and more borehole sampling through the slabs is planned. The risk-based approach addresses contamination that leaked through slabs from the building. Right now, "surface" is defined as the first six inches from the surface slab. If contamination is found above remediation goals, it will be removed up to three feet. A risk screening process will be applied to contamination below three feet.

The site believes there is ample evidence that subsurface radionuclide contaminants are not mobile and thus do not have a pathway to the public. Mobile contaminants in the subsurface, such as uranium, will be addressed through passive barriers. Any potential risk from residual contamination is a stewardship and risk management issue. A stewardship plan will be established with requirements for institutional controls, monitoring, maintenance, review, and response in the event of unacceptable contaminant movement or other remedy failure.

END-STATE DISCUSSION (ROUNDTABLE DISCUSSION): Next, Board members spent time asking questions and engaging in a roundtable discussion about the site's plans for subsurface remediation. Some of those questions and comments are summarized below:

- Several questions were posed about the history of the process waste lines, how long ago they were last used, their depth, length, and location, what the pipes carried, and the potential lifespan of pipes based on how they were constructed.
- If a hot spot is found, do you stop at three feet or continue digging to four feet or another depth until the cleanup is completed? – The site responded that it depends, but a risk screen might be performed to see if the contamination ends soon or if it is likely to go to depths of 20 feet or more.
- A comment was made about the methodology used for sampling and if that methodology is adequate.
- The lines are gravity-fed, and materials were sent to Building 774 where treatment occurred. The lines were pressure tested but have not been flushed, so there is a good possibility there is holdup in the lines.
- Will we rely on five-year reviews or more active management? – The site responded it would be a combination of both, and EPA is moving toward having annual mini-reviews. In addition, there will be an onsite government presence with FWS and oversight will occur by some agency or contractor reporting on a regular basis.
- Building 881 is four stories down, will all four stories be covered? – The response is that they are not sure what to do yet with that building, which was designed to withstand a nuclear blast and not be demolished.
- One member mentioned that during a tour about five years ago, a site employee discussed the OPWLs and was concerned at that time that damage and contamination from waste lines might be extensive, and wondered what if anything has changed since then? – The site responded that they suspect extensive contamination but don't know for certain, and that some of the groundwater plume near the industrial area is presumed to be related to the waste lines but again they don't know for sure.
- Why was a three-foot depth selected? – CDPHE considers 20 inches a depth at which radiation is considered to be safe and there are no problems with shine, so 36 inches would be even better. In addition, three feet is a depth the site is using for other construction such as taking down walls to three feet below grade.
- How much of the piping is above three feet? – The site responded that not a lot of the piping will be found above three feet, and some of the piping in the 700 area is at much greater depths.
- A suggestion was made that it might be worthwhile to consider probing the pipes such as is done in medical operations with small cameras. – The site responded that they are considering a similar method.
- Will storm or building drains be characterized in a similar fashion? – The site noted that an issue exists about whether those drains are a conduit for mobile contaminants.
- How large are the spots around the plutonium that we have discovered? – The site said that has not been gauged yet, but is part of what will be learned with the risk-based.

At its August meeting, the Board will hear a presentation on integration of end-state considerations, and will also hear a preview of proposed RFCA changes to attachments 5 and 10. Discussion with the agencies will continue, and recommendation topics will be developed during those discussions.

PRESENTATION OF NEW BOARD MEMBER ORIENTATION PROGRAM PROPOSAL: Ken Korkia discussed a proposal he submitted for the Board's approval, which had been reviewed by both the Executive and Membership Committees. Currently the Board's orientation program has as its primary activity a briefing to new members given by staff and usually attended by the Board's chair. In addition, each new member receives a briefing book. A site tour is also schedule as part of the orientation. Staff is proposing now to add more focus to new member orientation by increasing the amount of time involved, and most importantly through the addition of partnering between new and current Board members. The Board approved the new orientation program. Two Board members, Mary Mattson and Earl Sorrels, volunteered to serve as mentors. Both staff and the Membership Committee will work to recruit other current Board members to partner with new members.

APPROVAL OF WILDLIFE REFUGE TECHNICAL REVIEW GROUP CHARTER: The Board approved establishing the Wildlife Refuge Technical Review Group at its June meeting. The group meet last month and submitted for the Board's approval a charter for its work, which discussed specifics of the group's functionality such as a scope of work, membership, how the group will conduct its meetings and its responsibility to the Board. The Board approved the group's draft charter. Meetings of the group will be held on the third Thursday of each month. To date, staff has recruited around 10 new members of the public to assist with the group's efforts.

EXECUTIVE SESSION: The Membership Committee recommended, and the Board approved, the addition of four new members:

- **Dave Davia.** Dave is a business systems consultant/project manager in treasury management operations for Wells Fargo. He has a diverse background in the financial services industry, working in both project management and communication. Dave has a business degree from Metro State College of Denver, and is a Westminster resident. He will serve as an administrative/business representative.
- **Anne Fenerty.** A resident of Boulder, Anne is a retired chemist and a member of the Indian Peaks Chapter of the Sierra Club. She served in the past with the Colorado League of Women Voters, the Central Northeast Colorado Health Systems Agency, and the Colorado Social Legislation Committee. Anne has a BS in Chemistry from the University of Western Ontario (Canada), an MS in Inorganic Chemistry from Michigan State University, and has completed some work toward a Ph.D. at London University (UK). She will serve as an environmental organization representative.
- **Earl Gunia.** Earl is a retired naval officer living in Littleton. He served on nuclear ballistic submarines, at their support sites, and at acquisition command centers. During his career, Earl also worked on the development and activation of two new naval submarine bases. He has a BS in Electrical Engineering from the University of Colorado, and is a member of both the National Electronic Engineering Honor Fraternity and the Engineering Management Society. He will serve as a technical representative.
- **Henrietta Jonas.** Henrietta lives in Westminster, is a close neighbor of Rocky Flats and an engineer. She worked previously for Geneva Pharmaceuticals in Broomfield as a packaging engineer, and worked with companies in Columbus, Ohio, on development of packaging components and improving manufacturing processes. Henrietta has a BS in Mechanical Engineering Technology from Franklin University in Ohio, and an AAS in Medical Laboratory from the Columbus Technical Institute. She will serve as a community representative.

NEXT MEETING:

Date: *August 1, 2002, 6 to 9:30 p.m.*
Location: *Jefferson County Airport Terminal Building, Mount Evans Room, 11755 Airport Way, Broomfield*
Agenda: *Presentation on integration of end-state considerations and preview of proposed RFCA changes to attachments 5 and 10; Board discussion; next steps for developing end-state recommendations*

MEETING ADJOURNED AT 9:50 p.m. *

(* Taped transcript of full meeting is available in the RFCAB office.)

RESPECTFULLY SUBMITTED:

Shirley Garcia, Secretary
Rocky Flats Citizens Advisory Board

The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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